



# **Grain Transportation Report**

A weekly publication of the Transportation and Marketing Programs/Transportation Services Branch www.ams.usda.gov/tmdtsb/grain

Dec. 8, 2005

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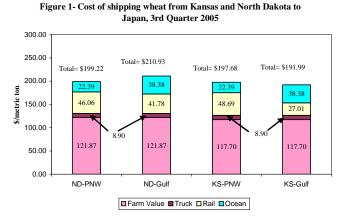
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The next release is Dec. 15, '05

Cost of Shipping U.S. Wheat to Japan Decreases, Truck Rates Increase. Wheat transportation costs from North Dakota and Kansas to Japan through the Pacific Northwest (PNW) and U.S. Gulf continued to drop during third quarter 2005. As in the second quarter, this was due mainly to decreases in ocean rates (tables 1 and 2). Wheat transportation costs from Kansas and North Dakota to Japan through the PNW

decreased about 4 and 6 percent respectively (table 1). The cost of shipping from Kansas to Japan through the U.S. Gulf decreased about 16 percent while the cost of shipping from North Dakota through the Gulf decreased about 13 percent (table 2). The total landed cost for shipping wheat from both states to Japan varied from \$192 to \$211 per metric ton (figure 1). Total transportation costs during the third quarter were 39 to 42 percent of the total landed costs (tables 1 and 2).



Source: USDA/AMS/Transportation and Marketing Programs

Ocean freight rates for wheat shipped from the PNW to Japan

dropped about 22 percent compared to second quarter 2005 (table 1). The drop in third quarter ocean freight rates was partially due to a smaller-than-usual increase in grain exports from the second quarter, which are normally lower than the third (*See GTR dated 10/20/05*). In comparison, ocean rates for wheat shipped from the U.S. Gulf to Japan decreased 30 percent during the third quarter (table 2).

In Kansas and North Dakota, the cost of moving wheat by truck to a rail-served grain elevator increased about 14 percent during the third quarter (tables 1 and 2) due to an increase in the cost of diesel fuel. Third quarter rail rates from Kansas to the PNW increased about 4 percent. North Dakota rail rates decreased slightly (table 1). The cost of moving wheat by rail from Kansas to the Gulf rose about 5 percent, and the

Table 1 -- Quarterly KS & ND to Japan through PNW rate comparisons, 2005

	KS			ND		
	2005	2005	Percent	2005	2005	Percent
Mode	2nd qtr	3rd qtr	change	2nd qtr	3rd qtr	change
	- \$/metric	ton -	%	- \$/metric	ton -	%
Truck	7.82	8.90	13.81	7.82	8.90	13.81
Rail	47.02	48.69	3.55	46.27	46.06	-0.45
Ocean vessel	28.58	22.39	-21.66	28.58	22.39	-21.66
Transportation Costs	83.42	79.98	-4.12	82.67	77.35	-6.44
Farm Value <sup>1</sup>	115.01	117.70	2.34	122.11	121.87	-0.20
Total Landed Cost	198.43	197.68	-0.38	204.78	199.22	-2.72
Transport % of landed cost	42.04	40.46		40.37	38.83	

Table 2 -- Quarterly KS & ND to Japn through Gulf rate comparisons, 2005

	KS		N	D		
	2005	2005	Percent	2005	2005	Percent
Mode	2nd qtr	3rd qtr	change	2nd qtr	3rd qtr	change
	- \$/metric	ton -	%	- \$/metric	ton -	%
Truck	7.82	8.90	13.81	7.82	8.90	13.81
Rail	25.74	27.01	4.93	39.23	41.78	6.50
Ocean vessel	54.95	38.38	-30.15	54.95	38.38	-30.15
Transportation Costs	88.51	74.29	-16.07	102.00	89.06	-12.69
Farm Value <sup>1</sup>	115.01	117.70	2.34	122.11	121.87	-0.20
Total Landed Cost	203.52	191.99	-5.67	224.11	210.93	-5.88
Transport % of landed cost	43.49	38.69		45.51	42.22	

Source: USDA/NASS, wheat prices for North Dakota (mainly HRS) and Kansas (mainly HRW)

cost from North Dakota to the Gulf increased about 7 percent (table 2).

Agricultural Service (FAS), total year-to-date (YTD) wheat exports to Japan were 2.27 million metric tons, accounting for about 12 percent of total U.S. wheat exports. Exports to Japan

According to the Foreign

wheat exports. Exports to Japan decreased 4 percent, while total U.S. wheat exports were 5 percent lower than last year. With the exception of hard red winter and durum wheat, YTD export sales of all major wheat classes are lower than last year

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(See GTR dated 12/01/05).

### **Grain Transportation Indicators**

Table 1--Grain transport cost indicators\*

	Truck Rail** Barge		Ocean		
Week ending				Gulf	Pacific
12/07/05	144	279	266	184	179
Compared with last week	<b>↓</b>	<b>†</b>	<b>†</b>	<b>↓</b>	<b>†</b>

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car);

barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

\*\*The rail indicator is not an index. It is the difference between the nearby secondary rail market bid for this week and the average bid for year 2000 (+) 100.

Source: Transportation & Marketing Programs/AMS/USDA

Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)

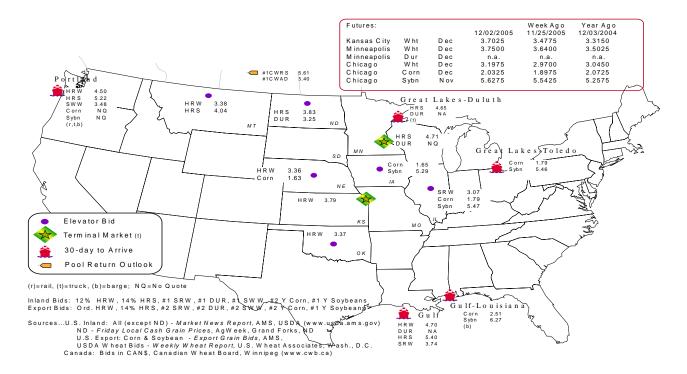
Commodity	Origindestination	12/2/2005	11/25/2005
Corn	ILGulf	-0.72	-0.64
Corn	NEGulf	-0.88	-0.88
Soybean	IAGulf	-0.98	-0.92
HRW	KSGulf	-0.91	n/a
HRS	NDPortland	-1.39	n/a

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1 **Grain bid summary** 



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## **Rail Transportation**

Table 3--Rail deliveries to port (carloads)\*

			Cross-Border	Pacific	Atlantic &	
Week ending	Mississippi Gulf***	Texas Gulf	Mexico	Northwest	East Gulf	Total
11/30/2005 <sup>p</sup>	1,022	2,456	2,116	4,188	529	10,311
$11/23/2005^{\rm r}$	1,511	2,352	1,904	4,684	589	11,040
2005 YTD	45,570	91,872	84,851	207,379	14,414	444,086
2004 YTD	38,613	86,515	59,506	192,682	9,393	386,709
2005 as % of 2004	118	106	143	108	153	115
Total 2004	43,102	92,073	67,992	209,625	10,986	423,778
Total 2003**	n/a	88,194	48,805	157,125	20,509	n/a

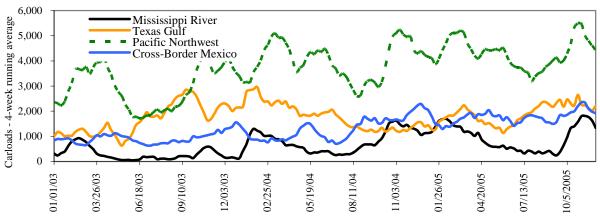
<sup>(\*)</sup> Incomplete Data; as of 9/22/04, Cross-Border movements included; (\*\*) Excludes 53rd week; (\*\*\*) Mississippi Gulf data back to January,

2004 from several new sources has been added; YTD= year-to-date; p=preliminary data; r = revised data

Source: Transportation & Marketing Programs/AMS/USDA

Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

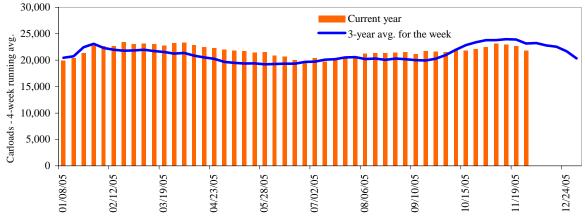
Figure 2 Rail deliveries to port



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3

Total weekly U.S. grain car loadings for Class I railroads



Source: Association of American Railroads

Table 4--Class I rail carrier grain car bulletin (grain carloads originated)

	E	ast		West		U.S. total	Car	nada
Week ending	CSXT	NS	BNSF	KCS	UP		CN	CP
11/26/05	2,192	2,665	9,213	561	4,582	19,213	5,407	4,882
This week last year	2,144	3,185	8,908	215	5,964	20,416	5,214	5,210
2005 YTD	137,406	152,215	429,685	25,199	281,716	1,026,221	202,995	192,102
2004 YTD	129,030	154,152	414,315	25,034	300,177	1,022,708	214,524	189,882
2005 as % of 2004	106	99	104	101	94	100	95	101
Total 2004	142,206	169,650	458,587	27,618	327,510	1,125,571	237,664	210,060

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

Table 5--Rail car auction offerings\*, week ending 12/03/05 (\$/car)\*\*

Delivery for:	Jan-06	Feb-06	Mar-06
BNSF <sup>1</sup>			
COT/N. grain	no offer	no offer	\$145
COT/S. grain	no offer	no offer	\$144
$UP^2$			
GCAS/Region 1	no offer	\$101	no offer
GCAS/Region 2	no offer	\$126	no offer

<sup>\*</sup>Auction offerings are for single-car and unit train shipments only.

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

Rail service may be ordered directly from the railroad via **auction** for guaranteed service, or via tariff for nonguaranteed service, or through the secondary railcar market.

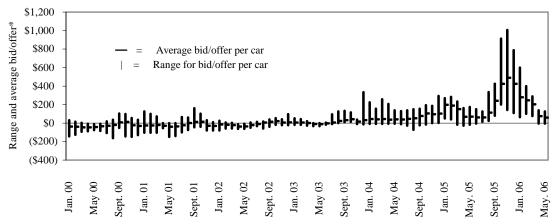
<sup>\*\*</sup>Average premium/discount to tariff, last auction

 $<sup>^{1}</sup>$ BNSF - COT = Certificate of Transportation

<sup>&</sup>lt;sup>2</sup>UP - GCAS = Grain Car Allocation System

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Secondary rail car market, delivery month-year



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Range for bid/offer shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Table 6--Weekly secondary rail car market, week ending 12/03/05 (\$/car)\*

	Delivery period					
	Jan-06	Feb-06	Mar-06	Apr-06		
BNSF-GF	\$175	\$138	\$88	\$50		
Change from last week	\$25	\$38	\$13	\$0		
UP-Pool	\$192	\$154	\$129	\$40		
Change from last week	-\$8	-\$13	-\$13	\$0		

<sup>\*</sup>Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

Table 7--Tariff rail rates for unit and shuttle train shipments\*

Effective date:					
12/5/2005	Origin Region	Destination Region	Rate/car	Rate/metric ton	Rate/bushel**
<u>Unit train*</u>					
Wheat	Chicago, IL	Albany, NY	\$1,861	\$20.51	\$0.56
	Kansas City, MO	Galveston, TX	\$2,020	\$22.27	\$0.61
	South Central, KS	Galveston, TX	\$2,450	\$27.01	\$0.74
	Minneapolis, MN	Houston, TX	\$2,420	\$26.68	\$0.73
	St. Louis, MO	Houston, TX	\$2,360	\$26.01	\$0.71
	South Central, ND	Houston, TX	\$4,117	\$45.38	\$1.24
	Minneapolis, MN	Portland, OR	\$3,848	\$42.42	\$1.15
	South Central, ND	Portland, OR	\$3,841	\$42.34	\$1.15
	Northwest, KS	Portland, OR	\$4,490	\$49.49	\$1.35
	Chicago, IL	Richmond, VA	\$2,161	\$23.82	\$0.65
Corn	Chicago, IL	Baton Rouge, LA	\$2,610	\$28.77	\$0.73
	Council Bluffs, IA	Baton Rouge, LA	\$2,470	\$27.23	\$0.69
	Kansas City, MO	Dalhart, TX	\$1,965	\$21.66	\$0.55
	Minneapolis, MN	Portland, OR	\$3,130	\$34.50	\$0.88
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.55
	Columbus, OH	Raleigh, NC	\$1,850	\$20.39	\$0.52
	Council Bluffs, IA	Stockton, CA	\$3,606	\$39.75	\$1.01
Soybeans	Chicago, IL	Baton Rouge, LA	\$2,655	\$29.27	\$0.80
	Council Bluffs, IA	Baton Rouge, LA	\$2,515	\$27.72	\$0.75
	Minneapolis, MN	Portland, OR	\$3,610	\$39.79	\$1.08
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.59
	Chicago, IL	Raleigh, NC	\$2,561	\$28.23	\$0.77
Shuttle Train*					
Wheat	St. Louis, MO	Houston, TX	\$1,820	\$20.06	\$0.55
	Minneapolis, MN	Portland, OR	\$3,648	\$40.21	\$1.09
Corn	Fremont, NE	Houston, TX	\$2,304	\$25.40	\$0.65
	Minneapolis, MN	Portland, OR	\$3,024	\$33.33	\$0.85
Soybeans	Council Bluffs, IA	Houston, TX	\$2,412	\$26.59	\$0.72
, and the second	Minneapolis, MN	Portland, OR	\$3,170	\$34.94	\$0.95

<sup>\*</sup>A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

<sup>\*\*</sup>Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Table 8--Tariff rail rates for U.S. bulk grain shipments to Mexico, 2005

Effective date: 12/05/05

Commodity	Origin State	<b>Border crossing region</b>	Train size	Rate <sup>1</sup>	Rate/metric ton	Rate/bushel**
Wheat	KS	Brownsville, TX	Shuttle	\$2,851	\$29.13	\$0.79
	ND	Eagle Pass, TX	Unit	\$4,004	\$40.91	\$1.11
OK	OK	El Paso, TX	Shuttle	\$2,235	\$22.84	\$0.62
	OK	El Paso, TX	Unit	\$2,432	\$24.85	\$0.68
	AR	Laredo, TX	Unit	\$2,383	\$24.35	\$0.66
	IL	Laredo, TX	Unit	\$3,188	\$32.57	\$0.89
	MT	Laredo, TX	Shuttle	\$4,298*	\$43.92	\$1.19
	TX	Laredo, TX	Shuttle	\$2,165	\$22.12	\$0.60
	MO	Laredo, TX	Shuttle	\$2,731	\$27.90	\$0.76
	WI	Laredo, TX	Unit	\$3,405	\$34.79	\$0.95
Corn	NE	Brownsville, TX	Shuttle	\$3,214	\$32.84	\$0.83
	NE	Brownsville, TX	Unit	n/a	n/a	n/a
	IA	Eagle Pass, TX	Unit	\$3,444	\$35.19	\$0.89
	MO	Eagle Pass, TX	Shuttle	n/a	n/a	n/a
	NE	Eagle Pass, TX	Shuttle	n/a	n/a	n/a
	IA	Laredo, TX	Shuttle	\$3,367	\$34.40	\$0.87
Soybean	IA	Brownsville, TX	Shuttle	\$2,989	\$30.54	\$0.83
	MN	Brownsville, TX	Shuttle	\$3,031	\$30.97	\$0.84
	NE	Brownsville, TX	Shuttle	\$2,798	\$28.59	\$0.78
	NE	Eagle Pass, TX	Shuttle	\$2,874	\$29.37	\$0.80
	IA	Laredo, TX	Unit	\$3,028	\$30.94	\$0.84

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

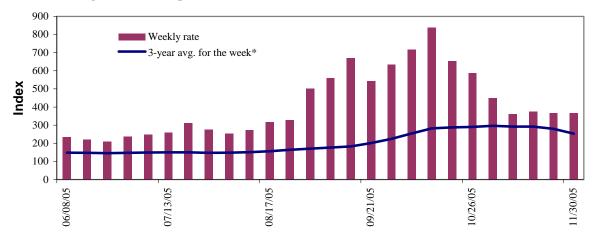
<sup>&</sup>lt;sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

<sup>\*</sup>High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

<sup>\*\*</sup>Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu Sources: www.bnsf.com, www.uprr.com

### **Barge Transportation**

Illinois River barge rate index - quotes



Note: Index = percent of tariff rate; \*4-week moving average Source: Transportation & Marketing Programs/AMS/USDA

The Illinois River barge rate index averaged 183 percent of the benchmark tariff rates between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market** bids are indicators of grain transport supply and demand.

Table 9--Barge rate quotes: southbound barge freight

Location	11/30/2005	11/23/2005	Dec. '05	Feb. '06
Twin Cities	n/a	353	n/a	n/a
Mid-Mississippi	365	359	n/a	n/a
Illinois River	366	367	373	370
St. Louis	322	320	317	317
Lower Ohio	327	327	332	333
Cairo-Memphis	275	275	284	280

Index = percent of tariff, based on 1976 tariff benchmark rate Source: Transportation & Marketing Programs/AMS/USDA

Benchmark tariff rates

#### Calculating barge rate per ton: (Index \* 1976 tariff benchmark rate per

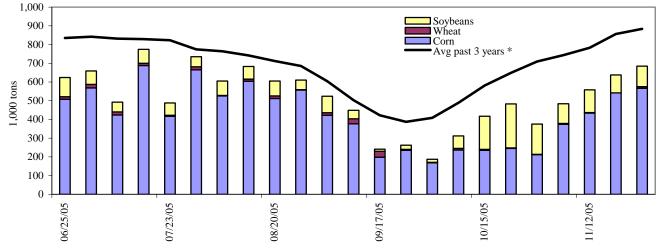
ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Note: The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).



Figure 7
Barge movements on the Mississippi River (Locks 27 - Granite City, IL)



\* 4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

Table 10--Barge grain movements (1,000 tons)

Week ending 11/26/2005	Corn	Wheat	Soybean	Other	Total
Mississippi River					
Rock Island, IL (L15)	340	3	28	0	371
Winfield, MO (L25)	445	3	101	0	549
Alton, IL (L26)	616	10	117	0	743
Granite City, IL (L27)	567	8	110	0	685
Illinois River (L8)	173	3	9	0	185
Ohio River (L52)	65	3	74	2	144
Arkansas River (L1)	0	6	31	9	46
2005 YTD	21,207	1,516	6,450	627	29,800
2004 YTD	22,887	2,517	5,360	680	31,444
2005 as % of 2004 YTD	93	60	120	92	95
Total 2004	26,235	2,701	6,784	843	36,563

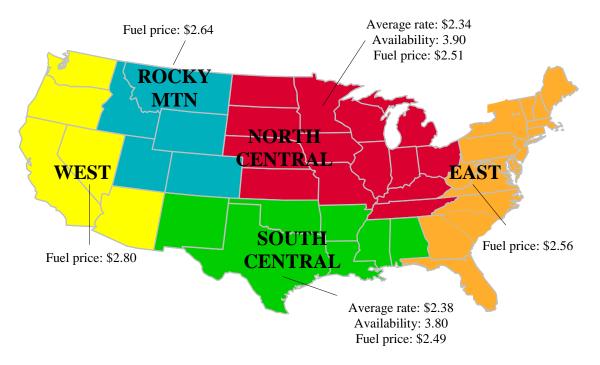
 $YTD\ (year-to-date)\ and\ calendar\ year\ total\ includes\ Miss/27,\ Ohio/52,\ and\ Ark/1;\ "Other"\ refers\ to\ oats,\ barley,\ sorghum,\ and\ rye.$ 

 $Source:\ U.S.\ Army\ Corp\ of\ Engineers\ (www.mvr.usace.army.mil/mvrimi/omni/webrpts/default.asp)$ 

Note: Total may not add exactly, due to rounding

## **Truck Transportation**

Figure 8
U.S. grain truck market advisory, 3rd quarter 2005\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, www.eia.doe.gov

Table 11--U.S. grain truck market overview, 3rd quarter 2005

Region	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity
				Rating con	pared to same quart	er last year
		<sup>1</sup> Rate per mile		1=Very easy	1=M	uch lower
		Rate per filite		to	to	
				5=Very difficult	5=Much higher	
National average <sup>2</sup>	3.16	2.38	2.04	3.6	2.9	3.2
North Central region	2.82	2.22	1.98	3.9	2.9	3.2
Rocky Mountain	4.23	2.28	1.96	2.4	2.8	3.2
South Central	2.73	2.28	2.14	3.8	3.0	3.3
West	4.54	3.29	2.65	3.7	3.3	3.0

<sup>&</sup>lt;sup>1</sup>Rates are based on trucks with 80,000 lb gross vehicle weight limit

Source: Transportation and Marketing Programs/AMS/USDA

<sup>&</sup>lt;sup>2</sup>National average includes: AR, CO, IA, IL, IN, KS, LA, MN, MS, ND, NE, OH, OK, OR, SD, TX, and WA.

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

Table 12--Retail on-highway diesel prices\*, week ending 12/5/05 (US\$/gallon)

			Change from		
Region	Location	Price	Week ago	Year ago	
I	East Coast	2.428	-0.039	0.317	
	New England	2.591	-0.028	0.357	
	Central Atlantic	2.569	-0.035	0.349	
	Lower Atlantic	2.354	-0.040	0.301	
II	Midwest <sup>1</sup>	2.390	-0.052	0.357	
III	Gulf Coast <sup>2</sup>	2.411	-0.045	0.416	
IV	Rocky Mountain	2.471	-0.120	0.347	
V	West Coast	2.538	-0.079	0.357	
	California	2.486	-0.113	0.261	
Total	U.S.	2.425	-0.054	0.356	

<sup>\*</sup>Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

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<sup>&</sup>lt;sup>1</sup>Same as North Central

<sup>&</sup>lt;sup>2</sup>Same as South Central

# **Grain Exports**

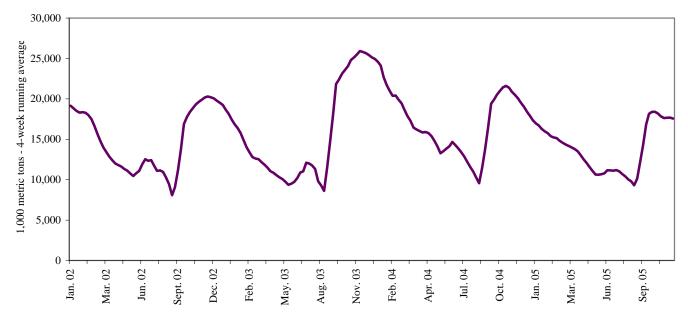
Table 13--U.S. export balances (1,000 metric tons)

	Wheat						Corn	Soybeans	Total
Week ending 1/	HRW	SRW	HRS	SWW	DUR	All wheat			
11/24/2005	2,738	297	1,089	822	95	5,041	7,759	3,926	16,726
This week year ago	1,580	512	1,205	757	100	4,154	8,917	6,297	19,368
Cumulative exports-crop year 2/	,								
2005/06 YTD	5,339	1,100	4,120	1,975	361	12,890	10,917	7,565	31,372
2004/05 YTD	4,910	2,090	4,182	2,848	312	14,342	11,065	9,834	35,241
2005/06 as % of 2004/05	109	53	99	69	116	90	99	77	89
2004/05 Total	9,407	3,217	8,083	4,773	686	26,117	44,953	29,878	100,948
2003/04 Total	12,697	3,785	6,928	4,895	1,053	29,359	47,704	24,108	101,171

Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/= Current unshipped export sales to date

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Figure 9
U.S. grain, unshipped export balance, including wheat, corn, and soybean sales



Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

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<sup>2/</sup> = Shipped export sales to date

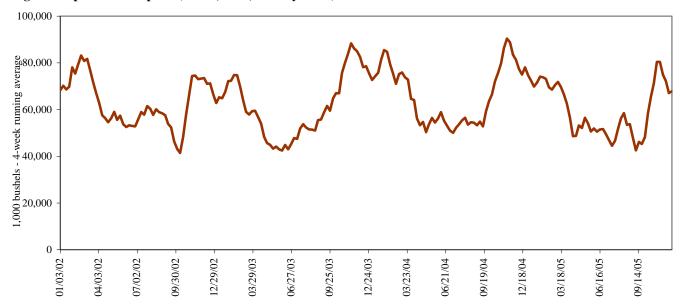
Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)

	P	acific Reg	ion	M	ississippi (	Gulf	7	Texas Gu	lf	P	ort Region tota	al
Week ending	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
12/01/05	143	162	243	75	593	543	235	44	0	548	1,211	279
2005 YTD	9,719	9,299	5,660	4,394	25,234	13,285	7,011	760	25	24,678	42,912	7,796
2004 YTD	11,837	9,499	4,199	6,853	30,763	13,586	8,094	99	20	25,535	51,202	8,213
2005 as % of 2004	82	98	135	64	82	98	87	767	125	97	84	95
2004 Total *	12,600	10,154	4,787	7,269	33,321	15,952	8,558	186	25	27,541	56,541	8,769

Source: Grain Inspection, Packers and Stockyards Aministration/USDA (www.gipsa.usda.gov); YTD: year-to-date; \* includes 53rd week

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10 U.S. grain inspected for export (wheat, corn, and soybeans)



Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

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# **Ocean Transportation**

Table 15--Weekly port region grain ocean vessel activity (number of vessels)

				Pacific	Vancouver
		Gulf		Northwest	B.C.
		Loaded	Due next		
Date	In port	7-days	10-days	In port	In port
12/1/2005	32	44	63	14	9
11/24/2005	29	45	64	7	10
2004 range	(1043)	(2573)	(3896)	(416)	(018)
2004 avg.	24	45	61	9	6

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11 **Gulf Port grain vessel loading (past 7 days)** 



Source: Transportation & Marketing Programs/AMS/USDA

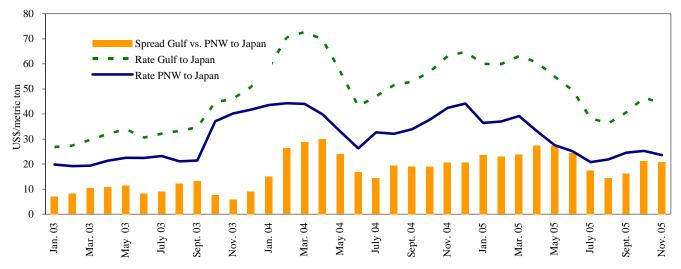
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Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)

Countries/ regions	2005 3 <sup>rd</sup> qtr	2004 3 <sup>rd</sup> qtr	Percent change	Countries/ regions	2005 3 <sup>rd</sup> qtr	2004 3 <sup>rd</sup> qtr	Percent change
Gulf to	_			Pacific NW to			_
Japan	36.33	50.08	-27	Japan		37.00	
China		54.00		Argentina/Brazil to			
Taiwan				China	32.00		
N. Africa	24.25			N. Africa	40.00		
Med. Sea				Turkey	25.00		

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12 **Grain vessel rates, U.S. to Japan** 



Source: Baltic Exchange (www.balticexchange.com)

Table 17--Ocean freight rates for selected shipments, week ending 12/03/05

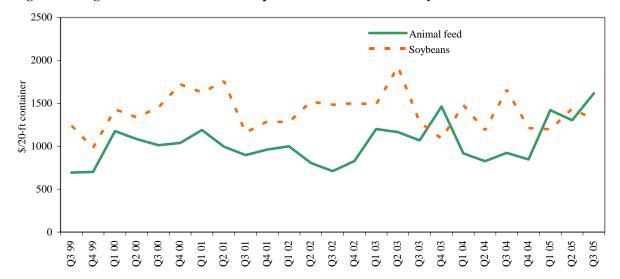
Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate (\$/metric ton)
U.S. Gulf	Nicaragua*	Wheat	Nov 15/25	4,130	69.99
U.S. Gulf	Japan	Hvy Grain	Nov 1/5	54,000	47.50
U.S. Gulf	Morocco	Hvy Grain	Oct 1/20	30,000	31.00
Australia	Italy	Wheat	Dec 5/25	55,000	26.00
Germany	Tunisia	Barley	Dec 6/12	25,000	24.25
River Plate	Spain	Hvy Grain	Oct 10/20	55,000	39.00
River Plate	Algeria	Hvy Grain	Dec 1/10	25,000	42.50
River Plate	Morocco	Hvy Grain	Oct 27/Nov 3	30,000	39.50
Russia	Pakistan	Hvy Grain	Oct 15/20	55,000	32.50

Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

Source: Maritime Research Inc. (www.maritime-research.com)

<sup>\*75</sup> percent of food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Figure 13
Weighted average rates<sup>1</sup> for containerized shipments of animal feed and soybeans to selected Asian countries



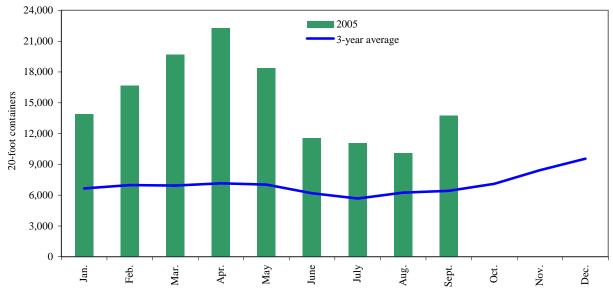
<sup>1</sup>Animal Feed: Busan-Korea (13%), Kaohsiung-Taiwan (35%), Tokyo-Japan (34%), Hong Kong (12%), Bangkok-Thailand (6%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (87%), Tokyo-Japan (9%), Bangkok-Thailand (2%), Hong Kong (1%) Quarter 3, 2005.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

During 2004, containers were used to transport 2 percent of total U.S. grain exported, and 3 percent of total U.S. grain exported to Asia.

 ${\bf Figure~14} \\ {\bf Monthly~shipments~of~containerized~grain~to~Asia~for~2005~compared~with~a~3-year~average} \\$ 

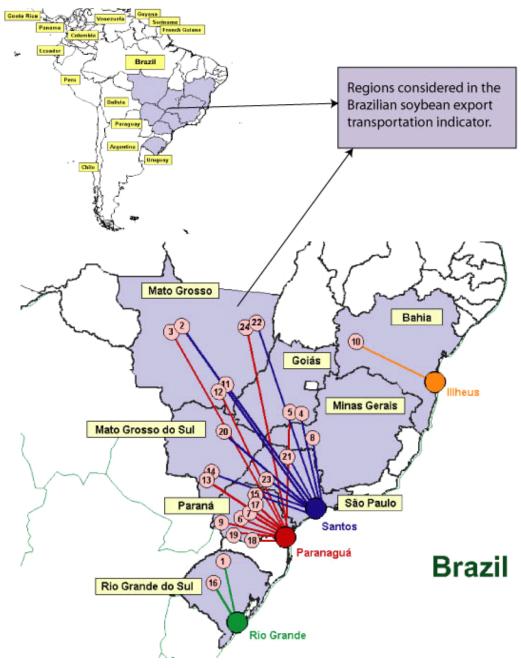


Source: Port Import Export Reporting Service (PIERS), Journal of Commerce

Note: PIERS data is available with a lag of approximately 40 days

# **Brazil Transportation**

Figure 15
Routes and Regions considered in the Brazilian soybean export transportation indicator<sup>1</sup>



<sup>&</sup>lt;sup>1</sup>Regions comprised 84 percent of Brazilian soybean production, 2003 Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 18--Truck rates for selected Brazilian soybean export transportation routes, 2nd quarter 2005

	Origin <sup>1</sup>	•	Distance	•	Freight price
Route #	(reference city)	Destination	(miles) <sup>2</sup>	Weight(%) <sup>3</sup>	$(per 100 miles)^4$
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.40
2	North MT(Sorriso)	Santos	1190	10.1	6.80
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.27
4	South GO(Rio Verde)	Santos	587	7.0	6.83
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.29
6	North Center PR(Londrina)	Paranaguá	268	4.4	8.51
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	5.37
8	Triangle MG(Uberaba)	Santos	339	3.8	10.75
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	5.16
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	7.14
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	6.26
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	5.63
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	6.07
14	Southwest MS(Maracaju)	Santos	652	2.9	6.31
15	West PR(Assis Chateaubriand)	Santos	550	2.5	5.68
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.49
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	5.73
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	10.77
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	7.95
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	5.60
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	7.59
22	Northeast MT(Canarana)	Santos	950	1.4	7.26
23	Assis SP(Palmital)	Santos	285	1.2	7.74
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	6.34
	Average		626	100	6.33

Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

Figure 16 Truck rates for selected Brazilian soybean export transportation routes 7.00 US\$/MT/100 miles 6.50 6.00 5.50 5.00 4.50 4.00 3.50 3.00 Jan-05 Feb-05 Mar-05 Apr-05 May-05 Jun-05 Western Center PR to Paranaguá North MT to Paranaguá Southwest MS to Paranaguá South GO to Paranaguá - South GO to Santos

Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

<sup>&</sup>lt;sup>2</sup>Distance from the main city of the considered region to the mentioned ports

<sup>&</sup>lt;sup>3</sup>The weight is directly proportional to the amount of production in each region

<sup>&</sup>lt;sup>4</sup>US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

<sup>&</sup>lt;sup>5</sup>RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 19--Monthly Brazilian soybean export truck transportation cost index

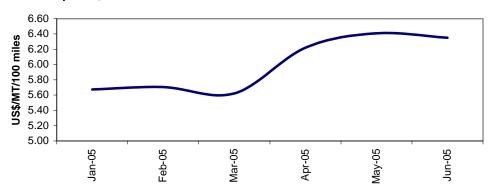
Table 17Wolting Brazilian soybean export truck transportation cost much						
M 41	Freight price*	Index variation (%)	Index value			
Month	(per 100 miles)	(Base: prior month)	(Base: Jan. $05 = 100$ )			
Jan. 05	5.67		100.00			
Feb. 05	5.71	0.5	100.54			
Mar. 05	5.62	-1.5	99.08			
Apr. 05	6.22	10.6	109.61			
May 05	6.41	3.1	112.96			
Jun. 05	6.35	-0.9	111.90			

<sup>\*</sup>weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

Brazilian soybean export truck transportation weighted average prices, 2005



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)\*

	2005	2005	
Ports	1st qtr	2nd qtr	
Santos	45.53	45.84	
Paranagua	44.64	44.84**	
Rio Grande	44.20	44.39	

<sup>\*</sup>correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

<sup>\*\*</sup>Revised figure

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#### **Related Websites**

Agricultural Container Indicators Ocean Rate Bulletin http://www.ams.usda.gov/tmd2/agci/ http://www.ams.usda.gov/tmd/Ocean/index.asp

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